REMARKS/ARGUMENTS

Receipt of the final office action mailed March 11, 2002 is duly acknowledged. Claims 79-82 and 84-92 have been amended. Claim 83 has been cancelled. Claims 79-82 and 84-92 are pending.

The Office Action states that the application does not contain a specific reference to the prior application in the first sentence of the specification as required by 37 C.F.R. 1.78. This was addressed by amendment in Applicant's amendment dated December 21, 2001.

Claims 79-87, 89 and 92 stand rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 6,090,697 to Xing et al. Reconsideration and withdrawal of this rejection is respectfully requested.

The Office Action asserts that "Xing et al. teaches, with reference to Figure 2, a capacitor comprising: a barrier layer 210; a first electrode 204 in contact with the barrier layer; a dielectric layer 212 in contact with the first electrode and the barrier layer; and a second electrode 214 in contact with the dielectric layer." The Office Action further asserts that the first electrode 204, which is the lower electrode, may be formed from Pt, Rh, Pd, Ir, or Ru. The Office Action further states that these metals are inherently oxidation resistant. With regard to claims 79, 83, and 84, the Office Action states that these claims include processing limitations which do not further limit the structure of these claims. Reconsideration and withdrawal of this rejection are respectfully requested.

Amended claims 79-92 require a capacitor comprising an oxygen annealed photo-decomposed platinum group metal film. The limitations of amended claims 79-82, namely the oxygen annealed photo-decomposed platinum group metal film, are structural limitations and are not merely drawn to the process by which the device is made. An "oxygen annealed photo-decomposed platinum group metal film" has a different structure

than an ordinary platinum group metal film. For instance, an oxygen annealed photo-decomposed platinum group metal film has different chemical and physical properties in that it is smoother and more uniform than a platinum film. Particularly, an oxygen annealed photo-decomposed platinum group metal film is both consistently smooth and has good step coverage in comparison to a platinum group metal film that is deposited via CVD or sputtering (as disclosed by Xing et al).

In addition, an oxygen annealed photo-decomposed platinum group metal film, is also structurally different from a photo-decomposed platinum group metal film in that the former has a lower carbon content than the latter. Accordingly, the limitation "oxygen annealed photo-decomposed platinum group metal film" is a structural limitation which must be considered in deciding patentability.

Xing et al. does not teach or suggest a capacitor having an oxygen annealed photo-decomposed platinum group metal film as required by amended claims 79-82 and 83-92. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 88, 90 and 91 stand rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,090,697 to Xing et al. and further in view of Summerfelt et al. The Office Action asserts that Summerfelt et al. teaches that the electrode may be formed of Os, Au, or Ag and that such metals are commonly used to form capacitor electrodes.

As noted above, it is believed that independent claim 79 is allowable, and for at least these same reasons dependent claims 88, 90, and 91 are also allowable. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

In view of the above, each of the presently pending claims in this application is

believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

By_____

Thomas J. D'Amico
Registration No.: 28,371
Mialeeka C. Williams-Bibbs
Registration No.: 48,037
DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP
2101 L Street NW
Washington, DC 20037-1526
(202) 785-9700
Attorneys for Applicant

Version With Markings to Show Changes Made

79. (Twice Amended) A capacitor comprising:

a barrier layer;

a first electrode in contact with said barrier layer;

a dielectric layer in contact with said first electrode and said barrier layer; and

a second electrode in contact with said dielectric layer, wherein at least one of said first and second electrodes comprises [a constituent of an ultraviolet irradiated organic] an oxygen annealed photo-decomposed platinum group metal [precursor] film.

80. (Twice Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Pt.

81. (Twice Amended) The capacitor according to claim 79, wherein said first electrode comprises a [platinum electrode] oxygen annealed photo-decomposed platinum group metal film.

82. (Twice Amended) The capacitor according to claim 81, wherein said [platinum] first electrode is a lower electrode.

84. (Amended) The capacitor of claim [83]79, wherein said oxygen annealed photo-decomposed platinum group metal film is essentially free of carbon.

85. (Amended) The capacitor of claim 79, wherein said [constituent] oxygen annealed photo-decomposed platinum group metal film is oxidation resistant.

86. (Amended) The capacitor according to claim 79, wherein said [constituent

of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Rh.

87. (Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Pd.

88. (Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Os.

89. (Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Ir.

90. (Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Au.

91. (Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Ag.

92. (Amended) The capacitor according to claim 79, wherein said [constituent of said ultraviolet irradiated organic] oxygen annealed photo-decomposed platinum group metal film comprises Ru.